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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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In the matter of )

Implementation of the Local )  
Competition Provisions of the )  
Telecommunications Act of 1996 )

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

CC Docket No. 96-98

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AMERITECH REPLY

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**AMERITECH REPLY**

The Ameritech Operating Companies (Ameritech) respectfully submit this Reply to comments in the above-captioned proceeding.

**I. INTRODUCTION AND SUMMARY**

The Commission initiated this proceeding after the United States Supreme Court vacated section 319 of the Commission's rules. Those rules, which were adopted in the *Local Competition Order*, had set forth a uniform national list of network elements that each incumbent local exchange carrier (ILEC) must make available on an unbundled basis to requesting carriers pursuant to section 251(c)(3) of the Communications Act.

In its comments, Ameritech and others urged the Commission to follow both the letter and spirit of the Court's opinion. Ameritech urged the Commission, in particular, to determine, *based on the facts* and the two overarching purposes of the 1996 Act, which network elements must be made available and which need not. To assist the Commission in this determination, Ameritech and other ILECs submitted overwhelming evidence demonstrating that there are viable alternatives for all network elements, at least in some geographic areas.

Certain competitive local exchange carriers (CLECs), on the other hand, trivialize the Court's opinion and ignore the facts. They ask the Commission simply to rubber-stamp its prior list of network elements – even to add new elements to that list - without presenting any credible evidence demonstrating that these elements meet the necessary and impair standards of section 251(d)(2). Instead they invite the Commission to participate in a shell-game: to “cure” the deficiencies of the *Local Competition Order* simply by throwing the word “material” into an otherwise unaltered analysis.

These same parties also argue strongly in favor of a uniform national list of network elements. They do so, not because a uniform national list offers any benefits that could not likewise be achieved with clear and objective uniform national *standards*. Indeed, not one of these parties even attempts to explain why uniform national standards should not be adopted. Rather, their agenda is to establish a least common denominator approach such that the feasibility of providing residential service in the remote regions of North Dakota is the benchmark for national unbundling requirements.

These and other issues relating to the overall framework by which the Commission should analyze the necessary and impair standard in section 251(d)(2) are addressed in a Joint Reply submitted by Ameritech, BellSouth, SBC Communications, and the United States Telephone Association. Ameritech responds further to these claims in the Aron-Fitzsimmons-Harris Affidavit, attached hereto.

In this Reply, and also in the Aron-Fitzsimmons-Harris Affidavit, Ameritech responds to comments addressing how section 251(d)(2) applies to specific network elements. Ameritech focuses, in particular, on four network elements: (1) switching; (2) advanced telecommunications capabilities; (3) interoffice transport; and (4) loops.

Ameritech does not here address operator services/director assistance or signaling and call-related databases. In its comments, Ameritech demonstrated that there are multiple alternative sources of these capabilities and that, subject to one *caveat*, these network elements do not meet the section 251(d)(2) test. The one *caveat* is that CLECs that use ILEC switching should be given access to ILEC signaling capabilities. That aside, no credible claim can be made that these network elements survive section 251(d)(2) scrutiny.

Switching. The majority of CLECs that filed comments in this proceeding do not claim to need unbundled local switching in most areas of the country and do not ask for it. The incumbent long-distance carriers, nevertheless, and a handful of other CLECs urge the Commission to require unbundled local switching everywhere. These carriers offer only the sketchiest of arguments to support this request, or, in the case of AT&T and MCI WorldCom, arguments that are demonstrably untrue. For example, while AT&T and MCI WorldCom argue that no CLEC could offer mass market service on a ubiquitous basis without incurring massive expenses duplicating the ILEC switch infrastructure, the fact is that CLECs have enough switches in the ground *today* to offer ubiquitous mass market service.

Similarly, while AT&T and MCI WorldCom argue that CLECs are at a cost disadvantage when using their own switches because of the need to collocate in ILEC end offices, these parties have it exactly backwards: CLECs are at an *advantage* when it comes to switching because, due to the expanded capacity of switches and the rapidly falling costs of transport, they are able to deploy a much more efficient switching architecture than has been deployed by ILECs.

Finally, while AT&T and MCI WorldCom claim that the process by which unbundled local loops are disconnected from ILEC facilities and CLEC facilities is inherently incompatible with mass market competition, their claim is belied by the facts and their own business strategies. In short, none of these parties presents any evidence that would support a nationwide unbundled local switching requirement.

Advanced Telecommunications Capability. The majority of CLECs offering data services do not claim any general need for unbundled access to ILEC advanced telecommunications electronics. To the contrary, they assert that unbundled access to DSLAMs and packet switches is appropriate only in narrow circumstances, such as where a CLEC is denied collocation or is unable to access a full clean copper loop. The Commission has, however, already addressed these CLECs concerns, and taken the only steps necessary to ensure that CLECs have access to the ILEC facilities they need to compete.

Nevertheless, the incumbent interexchange carriers, and a number of other CLECs urge the Commission to require ILECs to unbundle advanced telecommunications equipment ubiquitously. These parties, however, fail to offer any evidence demonstrating why they cannot provide advanced data services using their own DSLAMs and packet switches like other data CLECs. Instead, they rely on hyperbole, and the hope that the Commission will ignore market facts and disregard the clear limits of section 251(d)(2).

For example, MCI WorldCom, Sprint and AT&T assert that they need access to ILEC DSLAMs and packet switches because, they claim, the delay and cost of collocation can be substantial. They ignore, however, that ILECs confront the same, if not greater, costs in deploying advanced telecommunications equipment. They also

ignore that CLECs are actually leading ILECs in the deployment of advanced telecommunications capability, including in many smaller markets, which would hardly be the case if collocation were the impediment they make it out to be.

MCI, AT&T and CompTel further assert that DSLAMs and digital multiplexers are nothing more than loop electronics that must be provided with the loop. Such equipment, however, are multifunctional equipment used to provide switching and enhanced services functionalities, and are no more an integral part of the loop than are switches.

Finally, TRA and Level 3 Communications offer the absurd contention that unbundling advanced telecommunications equipment will promote deployment of advanced services to all Americans. Such a requirement, however, will discourage ILECs from deploying advanced telecommunications capability by forcing them to bear all of the risk, but permitting them to reap none of the reward, of their investments.

Loops. Most commenters acknowledge that loops are yet not competitive in many areas today, but numerous commenters agree with Ameritech that competitive alternatives are emerging that have made or will made loops competitive in an ever increasing number of areas. As a result, the Commission should tailor its unbundling requirements to mandate loop unbundling only in areas where there still is no practical and reasonable alternative to the ILEC's "last mile" loop facilities. It is also important that the Commission's rules allow sufficient flexibility so that ILECs are expeditiously relieved of their unbundling obligation in an area as soon as alternate facilities are deployed.

No evidence has been presented that that justifies any additional regulatory requirements regarding loop conditioning, subloop unbundling or intra-building wire. The Commission's current definition of an unbundling loop already requires nondiscriminatory conditioning to the extent authorized under the Act. There is no grounds for a change. The Commission should also reject calls that ILECs provide conditioning at no charge. Conditioning costs are a proper forward-looking cost incurred as a result of a CLECs request for a network element and are properly recovered from the CLEC that caused the cost.

Subloop unbundling also should not be added to the uniform national list of network elements because there is no showing that it meets the impair standard, or that the associated technical, administrative, and operation issues recognized by the Commission in 1996, have been resolved. Subloop unbundling should continue to be addressed at the state level on a case-by-case basis.

The Commission also should reject requests that it add intra-building wiring to the uniform national list of network elements because there is no showing that ILEC-owned wire in customer buildings meets the impair standard in all cases. Of course, wire owned or controlled by the building owner is not the ILEC's to unbundle.

Interoffice Transport. The Commission also must reject calls to include interoffice transport (dedicated, shared or dark fiber), on a uniform national list of network elements. It is undisputed that in many areas reasonable and economical alternatives exist to ILEC dedicated interoffice transport. Therefore, the ILECs should not required to unbundle their transport in those areas because there is no impairment if access is not required. In fact, alternate dedicated transport facilities have been widely

deployed and are available to CLECs in dense wire centers, and in some smaller market areas. No party refutes the fact these facilities are available, or proves that the CLECs will be impaired if they have to use these alternate facilities in lieu of ILEC dedicated transport.

Shared transport does not meet the impair standard for two reasons. First, since switching is an integral part of shared transport, ILEC cannot be required to offer shared transport in those wire centers where access to unbundled local switching is not required. Second, even to the extent unbundled local switching is required, there are practical and economical alternatives to shared transport available. These alternatives enable CLECs to route their traffic to all offices on the ILEC's network using a combination of custom routing, interconnection, end office integration, reciprocal compensation, and dedicated transport. These alternatives resolve the three concerns that led the Commission to order shared transport in the first place. The proponents of shared transport utterly ignore these alternatives, each of which provides a reasonably efficient competitor a meaningful opportunity to compete without shared transport.

Several parties specifically ask the Commission to add "dark fiber" to the uniform list of network elements. Dark fiber is an optical fiber facility without any transmission equipment at either end. The fact that such a facility, by itself, is incapable of carrying communications also renders it incapable of being classified as a network element. Further, however, the request must be also rejected because no party has presented proof that dark fiber, with its ability to support a large amount of revenue producing services, meets the impair standard at any location, let alone on a nationwide basis.

## II. DISCUSSION

### a. Unbundled Local Switching

#### 1. Most CLECs Do Not Need or Desire Unbundled Local Switching

In its comments, Ameritech argued that ILECs should not be required to provide access to unbundled local switching in any wire center in which collocation is available that is located in a rate center that is being served by at least one CLEC circuit switch.<sup>1</sup> In support of this proposal, Ameritech presented an avalanche of information demonstrating that CLECs do not need ubiquitous access to unbundled local switching in order to earn an economic profit. It showed that switch deployment is proceeding at a rapid pace by large and small CLECs alike in both large and small markets, and that already – just 2 ½ years after adoption of the *Local Competition Order*<sup>2</sup> – CLECs have deployed sufficient switch capacity to address a large majority of Ameritech's access lines.

CLEC comments bear that out. The majority of CLECs that filed comments in this proceeding do not claim to need unbundled local switching in most areas of the country and do not ask for it.<sup>3</sup> Indeed, a number of these CLECs urge the Commission *not* to require unbundled local switching.<sup>4</sup> MCG, for example, states:

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<sup>1</sup> In its comments, Ameritech may have, at times, described this test without referencing the collocation requirement. To be clear, the test is as stated above and in the introduction to Ameritech's comments.

<sup>2</sup> *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 (1996).

<sup>3</sup> See, e.g., Focal Comments at 4-5; MCG Comments at 31; Cox Comments at 5; Rhythms Netconnections Comments at 27-28; Low Tech Designs Comments at 12. See also OpTel Comments (taking no position on unbundled local switching); NEXTLINK Comments (same); e.spire/Intermedia Joint Comments (same); Media One (same); Winstar Comments (same); Northpoint Comments (same); Teligent (same); New England Voice and Data (same); Network Access Solutions (same); Allegiance (same); Waller Creek (same); McLeod Comments at 6

MCG does not need to acquire switching capability from the ILEC. The switches MGC has deployed are generally available to all CLECs to purchase from Nortel, Lucent, or any other third party switch vendor. Therefore, competitors are not dependent on the ILEC for switching.

Likewise, Focal states:

[T]here do not appear to be significant obstacles to CLECs raising the capital to purchase switches with the proper business plan and experience. Focal was a start-up company with almost no business three years ago, yet Focal has been able to raise almost two hundred million dollars from the venture capital and high-yield markets, and now provides metropolitan Chicago, New York, Boston, Washington, Los Angeles, San Francisco, and Philadelphia with services from seven operating switches, with additional facilities planned for the near future. The point here is not to pat Focal on the back, but to point out that the “impair” standard does not appear to apply to switching, at least in some geographic areas.<sup>5</sup>

Focal goes on to explain that requiring ILECs to provide ubiquitous unbundled access to local switching is not only unnecessary but “would be completely inconsistent with the Act’s goal of encouraging facilities-based competition[,]” particularly if such access were provided at TELRIC rates.<sup>6</sup> It urges the Commission to “make advancement

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(noting that it has no plans to use unbundled local switching); Level 3 Comments at 29 (same); KMC Telecom Comments at 18 (same). *See also* ALTS Comments (taking no position on unbundled local switching but seeking UNE modifications that *assume* that a CLEC is providing its own switching).

<sup>4</sup> The Public Utility Commission of Ohio (PUCO) also urges the Commission not to require unbundled local switching. Significantly, PUCO issued a data request to the industry in order to obtain a factual record before making its recommendation.

<sup>5</sup> Focal Comments at 4. *See also* Rhythms Netconnections at 27-28 (“because a new entrant can in many circumstances buy and use electronic switching systems on comparable terms and conditions from several different commercial vendors, a competitor’s ability to provide service would, in general, not be materially diminished by an inability to gain access to an ILEC’s switch. ... [A]ny objective analysis of the switching UNE must reflect the commercial realities of today’s wholesale network equipment marketplace.”) *And see* Low Tech Designs Comments at 12 (conceding that there is an available marketplace mechanism for self-supply of switching).

<sup>6</sup> Focal Comments at 2. *See also id.* at 5.

of facilities-based competitive investment its primary principle for giving effect to the Supreme Court's remand."<sup>7</sup> To this end, Focal proposes virtually the same uniform national standard advanced by Ameritech and others:

[The Commission should rule] that unbundled local switching will not be available in areas where competitors have demonstrated the ready availability of switching through self-provisioning. The best and simplest test of switch self-provisioning (determined geographically at the level of NXX V&H coordinates) is the presence of a [sic] CLECs' NXXs in the LERG.<sup>8</sup>

Echoing these sentiments more generally, OpTel warns that "*unconstrained* access [to network elements] would eviscerate incentives for entrants to install their own facilities and thereby inhibit the type of competition most likely to spur innovation, provide price discipline and otherwise benefit consumers."<sup>9</sup> And Cox notes that

[T]he Commission must be careful not to overreach. The basic goals of the 1996 Act are best met by FCC rules that require access only to those ILEC network elements that are truly competitively significant. A decision to designate a particular ILEC network component or function as a UNE that must be made available will have an impact on the development of facilities-based competition. ...A regulatory regime that fosters the broad availability of incrementally priced UNEs discourages competing carriers from building their own networks and leaves them dependent over the long term on the ILECs, to the detriment of the public interest.<sup>10</sup>

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<sup>7</sup> *Id.* at 1.

<sup>8</sup> *Id.* at 1-2.

<sup>9</sup> OpTel Comments at 4 (emphasis in original), quoting *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Second Further Notice of Proposed Rulemaking, FCC 99-70, released April 16, 1999 (*Notice*) (Separate Statement of Commissioner Michael K. Powell at 2). See also Winstar Comments at 4-5: "Facilities-based competitive providers that do not merely copy the current infrastructure by reselling or purchasing ILEC loops will bring real competition to the United States telecommunications market."

<sup>10</sup> Cox Comments at 3. See also *id.* at 6 ("The Supreme Court's view that parameters must be placed on the ILEC's legal obligations to unbundle and to make available portions of their network is consistent with the strong preference in the 1996 Act for the establishment of sustainable facilities-based competition for telecommunications services.").

## **2. Parties Who Request Unbundled Local Switching Fail to Demonstrate That it Should be Required**

It should be a given that if Focal, OpTel, McLeod, KMC, Level 3, and others do not need ubiquitous access (or any access) to unbundled local switching, then neither does any other reasonably efficient CLEC. Nevertheless, the incumbent long-distance companies – which dwarf these smaller facilities-based CLECs at every level - and a handful of other CLECs<sup>11</sup> urge the Commission to require unbundled local switching everywhere.

These carriers present no evidence that would suggest, much less demonstrate, that they cannot do what Focal, McLeod and others are doing – provide local service on a profitable basis using their own switches. Indeed, most of them provide little or no evidence at all.

Prism, for example, bases its argument entirely on the section 271 checklist.<sup>12</sup> Excel claims only that it cannot obtain unbundled local switching from other CLECs, completely ignoring the feasibility of deploying its own switches.<sup>13</sup> Supra simply

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<sup>11</sup> RCN Comments at 23; Qwest Comments at 69; Excel Comments at 12; Prism Comments at 5; CoreComm Comments at 41-43; aXessa Comments at 7; Net2000 Comments at 13-14; Supra Comments at 6; Choice One et al. Comments at V.A.2; CompTel Comments at 37-41. *See also* KMC Comments at 18-19 (asserting no need for switching but nevertheless urging Commission to require it); McLeod Comments at 6 (same); Level Three Comments at 29 (same).

<sup>12</sup> Prism Comments at 18-19.

<sup>13</sup> Excel Comments at 9-10 and at Affidavit of J. Christopher Dance at ¶ 5. *See also* Qwest Comments at 72 (same); and CompTel Comments at 39. Of course, to the extent a wholesale market has not developed, it is because today's switches are fully scalable. Thus a CLEC can purchase switches that are sized to meet its own short-term needs without having to commit to excess capacity.

includes switching on its proposed list of required network elements, with no explanation at all.<sup>14</sup>

Other CLEC comments are equally lacking in substance. Net2000, CoreComm, and RCN, for example, claim that they cannot deploy a sufficient number of switches quickly or cheaply enough to provide service ubiquitously.<sup>15</sup> They do not, however, provide any facts to indicate where they can and cannot provide service. More importantly, they do not explain why competition policy should be designed to enable them to do what no firm – much less a small new entrant – *ever* does in any capital intensive industry – which is to roll-out ubiquitous service in one fell swoop.<sup>16</sup>

Competition policy should be designed to promote the interests of consumers, not the business plans of individual CLECs – much less wholly unrealistic business plans. Competition does not require that the RCNs, the CoreComms, and the Net2000s of the world be able to offer service in every market immediately. There are 168 different CLECs with their own switches serving a variety of markets. Competition requires that these and other CLECs grow their facilities so that *collectively* they bring effective

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<sup>14</sup> Supra Comments at 6.

<sup>15</sup> Net2000 Comments at 13-14; RCN Comments at 23-24; CoreComm Comments at 41-42.

<sup>16</sup> Offering its own variation on these claims, KMC claims that *some* CLECs may need access to unbundled local switching in *some* places. KMC Comments at 18-19. KMC does not, however, support even this modest proposition. KMC Comments at 18-19. The ostensible basis for this argument is that CLECs may need only modest amounts of switching capacity in certain markets, but not enough to justify the costs of a switch. Obviously, that is true, but, in many cases, those markets can be served by switches that are located in other, denser markets or by resale. Indeed, resale is generally *cheaper* than the UNE platform in the most sparsely populated areas. *See infra*. In any event, KMC, like RCN, CoreComm, and Net2000, confuses the interests of CLECs with the interests of consumers. Whether or not a particular CLEC can serve every market it would like to serve is not the issue; the purpose of the Act is to eliminate entry barriers, not cater to the individualized needs of every CLEC that might come along. In this respect, KMC's superficial speculation about the hypothetical needs of hypothetical CLECs is hardly a basis for a uniform national unbundled local switching requirement.

competition to every market in which it is feasible, not that each one provides ubiquitous service.

KMC claims that the six to nine months it takes to deploy a switch “would materially impair the ability of CLECs that require unbundling switching it [sic] to provide service.”<sup>17</sup> Even assuming, *arguendo*, that switch deployment does take six to nine months, a six to nine month lead time would not meet the impairment standard. The DOJ Merger guidelines, which were applied by the Commission in the MCI WorldCom merger proceeding, provide that entry that is likely within two years constrains the exercise of market power, and MCI WorldCom itself concedes the relevance of that standard to this proceeding.<sup>18</sup>

CompTel claims that it took one of its members two years to install a switch in Philadelphia and that another member received a cost quote of \$312,000 for collocation in one central office in Kansas City.<sup>19</sup> Isolated anecdotes involving two of CompTel’s 334 members, however, are completely irrelevant.<sup>20</sup> In the past 2 1/2 years, CLECs have deployed switches at a rate of two every three days, and that pace has actually accelerated over the past year. This could not have happened if the time it takes to deploy a switch and the cost of collocation were the barriers to widespread facilities-based competition that CompTel claims.

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<sup>17</sup> KMC Comments at 19.

<sup>18</sup> See MCI WorldCom Comments, Declaration of John E. Kwoka, ¶ 10.

<sup>19</sup> CompTel Comments at 39 and at Tidwell Affidavit at ¶ 5.

<sup>20</sup> Even CLECs who claim that ILECs should be required to provide unbundled local switching concede that switch deployment takes no longer than six to nine months. See KMC Comments at 18-19. See also *UNE Fact Report* at I-30.

### 3. The Arguments of AT&T and MCI WorldCom Are Belied by the Facts and Their Own Business Strategies.

Much more voluminous than these sketchy assertions, *but no less flawed*, are the arguments of the incumbent long-distance carriers, led by AT&T and MCI WorldCom. That these telecommunications giants claim to need unbundled local switching is, of course, especially ironic. Dozens of small start-up companies whose *annual* capital budgets are dwarfed by what AT&T and MCI WorldCom spend in a *week* are deploying switches all over the country. Moreover, the arguments of both AT&T and MCI WorldCom are belied by their own public statements in other fora and other proceedings. For example, while AT&T claims that it has installed only “a tiny fraction” of the switches it would need to serve the mass market, its 10-K filing in March of this year flatly states that “*no more significant future capital expenditures are scheduled for circuit switching.*”<sup>21</sup> Given that AT&T has no plans to invest significant capital in additional circuit switches, one can only presume that AT&T will serve its cable telephony customers with its existing base of circuit switches coupled with existing and new packet switches. That being the case, AT&T’s lengthy discussion of the costs of duplicating the ILEC circuit-switched infrastructure is, not merely redundant, but a conscious deception of the Commission.

Moreover, the economics AT&T espouses in this proceeding are flatly inconsistent with the positions it took for years at the Commission when its own regulatory status was at issue. For example, whereas AT&T now claims that “‘*any increase*’ in cost resulting from restrictions on the availability of network elements would

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<sup>21</sup> AT&T Corp. Form 10-K, filed March 19, 1999 (emphasis added).

in fact impair CLECs' 'ability' to provide service,"<sup>22</sup> it has previously counseled that concerns about its *own* advantages in the long-distance marketplace are "completely misplaced, and reflect a profound disregard for the efficient functioning of competitive markets and the proper role of regulation."<sup>23</sup> More specifically, in direct contradiction of the position it takes in this proceeding, AT&T argued:

All firms do not need to be equal in size, quality, and number of customers for a market to be competitive. Instead, what characterizes competition is process in which firms each develop their own "advantages" and freely contend to attract customers, and as a consequence allocate resources to their most efficient use. This is the process that creates the most effective incentives towards higher quality and lower prices, and therefore the process which best serves the interest of consumers. The issue for the Commission, therefore, is not to weigh and compare the different "advantages" each carrier possesses, but to determine whether any of these advantages precludes the effective functioning of a competitive market.<sup>24</sup>

MCI WorldCom is equally hypocritical. While MCI WorldCom professes to need the unbundled network element platform (UNE-P) to provide mass market service, it tells investors and analysts that it is not particularly interested in serving residential customers.<sup>25</sup> In addition, when asked point blank by regulators whether, if given the

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<sup>22</sup> AT&T Comments at 7.

<sup>23</sup> Reply Comments of American Telephone and Telegraph Company filed, Sept. 18, 1990 in *Competition in the Interstate Interexchange Marketplace*, CC Docket No. 90-132 at 22.

<sup>24</sup> *Id.* (emphasis in original).

<sup>25</sup> See "Market Place Notes on corporate culture and possibilities as MCI Worldcom meets two years after its creation," New York Times, June 7, 199, p. C 13, quoted *infra*.

UNE-P, MCI WorldCom would commit to residential service, MCI WorldCom consistently hems and haws.<sup>26</sup>

These inconsistencies and contradictions are just the tip of the iceberg. Indeed, if the arguments AT&T and MCI WorldCom advance in this proceeding are to be believed, then AT&T's \$120 billion cable television investment strategy is doomed to failure.

These carriers are not to be believed, though. Their comments are a study in overstatement, and their positions are belied by the indisputable facts. Ameritech responds to these comments below and in Attachments A and B.

**A. CLECs Could Provide Ubiquitous Mass Market Service at a Reasonable Cost.**

AT&T and MCI WorldCom argue that, without access to unbundled local switching, CLECs could not compete viably in the mass market. They claim that "CLECs to date have installed only a tiny fraction of the switches that the incumbent LECs have deployed – an amount that is plainly insufficient to compete with the incumbent LECs for most residential and business customers."<sup>27</sup> This gap, they assert, "reflects the fact that switch-based entry is not an economically viable means to compete for most new customers, especially residential and smaller business customers."<sup>28</sup> They cite, in particular, two ostensible obstacles which, they claim, preclude CLECs from using their own switches to compete on a mass market basis: (1) the cost of duplicating

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<sup>26</sup> It did so most recently at the May 12, 1999, Meeting of the Public Utilities Commission of Ohio in response to direct questions from several commissioners.

<sup>27</sup> AT&T Comments at 89. *See also* MCI WorldCom Comments at 54.

<sup>28</sup> AT&T Comments at 89; MCI WorldCom Comments at 54.

the ILEC switch fabric and collocating in ILEC end offices; (2) the “hot-cut” process by which customer lines are transferred from the ILEC switch to the CLEC switch.

These arguments are refuted in Attachments A and B hereto. Attachment A shows that CLECs would not have to deploy anything close to the number of switches that ILECs have deployed in order to achieve ubiquitous switching capacity – even assuming, for the sake of argument, that CLECs actually would *want* ubiquitous switching capacity. Indeed, it shows that CLECs *already* have deployed enough switches to provide ubiquitous mass market service; that they can readily, and on a cost-effective basis, add capacity as and when needed; and that they are, in fact, doing so. Attachment B shows that the time it takes to “hot-cut” customers from Ameritech’s switch to the CLEC switch is no constraint whatsoever on a mass market strategy, and that AT&T’s claims of massive errors are inconsistent with the facts. Ameritech discusses these points below.

**i. CLECs Do Not Need To Duplicate the ILEC Switch Fabric in Order To Compete Effectively and Ubiquitously in the Mass Market.**

A central premise of both AT&T and MCI WorldCom is that a CLEC would need to duplicate the entire ILEC switch infrastructure in order to compete effectively on a mass market basis.<sup>29</sup> AT&T notes that ILECs have invested nearly \$60 billion in switches and suggests that CLECs would have to do the same.<sup>30</sup> MCI WorldCom claims

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<sup>29</sup> AT&T Comments, Affidavit of C. Michael Pfau (Pfau Affidavit) at ¶ 14 (“[t]o compete effectively with ILECs on a state-wide basis using a CLEC’s own switches and unbundled ILEC loops, any individual CLEC today would need to deploy an enormous number of switches, many times the number it has currently deployed”); MCI Comments at 54.

<sup>30</sup> AT&T Comments at 90-91.

that the forward looking cost of matching the 24,000 ILEC switches would be \$20.5 billion.<sup>31</sup>

These arguments are an exercise in frivolity. Aside from the fact that neither AT&T, MCI WorldCom, nor any other CLEC for that matter, has any intention of using unbundled local switching to provide ubiquitous service to the “mass market” – a matter alluded to above and discussed further below - CLECs would not have to replicate anything close to the existing ILEC switch fabric in order to compete ubiquitously with circuit switches in the mass market. Eighty percent of all ILEC wire centers serve fewer than 20,000 lines. Over half of these wire centers serve fewer than 5000 lines.<sup>32</sup> A CLEC seeking ubiquitous switch coverage would never use switches with such limited capacity. Today’s switches typically range in capacity from 30,000 to 70,000 lines.<sup>33</sup> Moreover, because of the rapid decline in the cost of fiber optic transport, these switches can serve a broad geographic area. Thus any new entrant seeking to replicate the incumbent’s switching capabilities would do so with far fewer (larger) switches.

Of course, the Commission has already recognized as much. In the *Number Portability* proceeding, the Commission noted:

A new entrant will employ equipment capable of serving a larger area per switch, and serve fewer customers in each area served by one switch, than incumbent LECs do presently. As a result, one switch of a new entrant could serve all customers in a certain area, while the

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<sup>31</sup> MCI WorldCom Comments, Affidavit of Mark T. Bryant at 13, n. 4.

<sup>32</sup> *UNE Fact Report* at II-1 (Figure 1).

<sup>33</sup> As noted, CLECs can purchase only such capacity as they need and then quickly and inexpensively expand capacity because of the modular design of today’s switches.

incumbent LEC must use two or more switches to serve all customers in that area.<sup>34</sup>

Indeed, MCI WorldCom's own comments schizophrenically recognize this: "CLECs are employing forward-looking networks that, given such advances as fiber technology, will require far fewer switches [than the ILECs have deployed]."<sup>35</sup>

Because CLECs would not have to deploy anything close to the 24,000 switches that ILECs have deployed, they could match the switch capacity of all ILECs at a fraction of the cost ILECs had to pay for that capacity. Even that lesser cost, however, overstates the real investment that CLECs would have to make to offer ubiquitous mass market service because no CLEC would ever have need the full capacity of today's ILEC switches. That capacity was put in place (*albeit* inefficiently by today's standards) to accommodate all of the access lines in each ILEC's serving area. By contrast, at least in the near future, CLECs individually and collectively will serve a relatively small proportion of the access lines in the ILECs' serving areas. For example, AT&T's share of long-distance services fell at a rate of less than 3 ½% a year during the six years following divestiture. While that pattern may or may not repeat itself, clearly CLECs do not need switch capacity to serve anything close to the entire ILEC customer base. Here,

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<sup>34</sup> *Telephone Number Portability*, First Report and Order, 11 FCC Rcd 8352, 8449, n. 539 (1996). See also *Report of Texas Number Conservation Task Force*, December 12, 1997, <http://www.npac.com/regions/southwest/swdocs/texas/txNumberConservation.htm> (CLECs "are likely to provide service using a network architecture which is not a mirror image of the ILEC infrastructure. Specifically, the area served by a CLEC switch is likely to be much larger than that of the ILEC and may/will cover a multitude of existing rate centers.")

<sup>35</sup> MCI WorldCom Comments at 39. See also Sprint Comments at App. D at 1 (CLECs can centrally deploy their switches to reach the areas served by multiple ILEC switches. For instance, in Orlando, Sprint deployed a 5ESS that was centrally located among eight BellSouth central offices in the Orlando area.")

again, MCI WorldCom concedes the point, noting that the notion “that [a] CLEC will begin by completely overbuilding the ILEC’s network – is unrealistic.”<sup>36</sup> Even AT&T (which does not concede the point) nevertheless has told analysts that it will take until 2005 just to achieve a 30% share of residential local service in the markets in which it is active, even though 70% of its cable lines will be upgraded for two-way service by year-end 1999.<sup>37</sup>

It is, of course, not possible to predict the precise number of customers that CLECs will serve with their switches. Assuming just for the sake of argument that CLECs obtained a 20% market share in just the next two years – which vastly exceeds analysts’ and the CLECs’ own projections<sup>38</sup> - the total cost of deploying switches to serve those customers would be less than \$4 billion.<sup>39</sup> This investment is hardly the impediment to competition that AT&T and MCI WorldCom claim. AT&T, for one, just spent approximately \$100 billion to become “a cable television powerhouse.”<sup>40</sup> Its 1998 capital expenditures (excluding its cable purchases) approximated \$8 billion. MCI

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<sup>36</sup> MCI WorldCom Comments, Bryant Affidavit p 32.

<sup>37</sup> See “Broadband Telephony Illustrative Overview of Customer Penetration Possibilities,” in *AT&T Proposal for the Acquisition of MediaOne*, Investment Community Briefing, April 23, 1999 at 7, [http://www.att.com/ir/ppt/att\\_metronet.ppt](http://www.att.com/ir/ppt/att_metronet.ppt).

<sup>38</sup> Analysts recognize that, AT&T aside, CLECs are not generally interested in residential customers. Goldman Sachs, for example, discusses CLEC market share *only* in terms of the business market. It predicts “that CLECs will gain approximately 40% of the business local telephone market by 2008.” Goldman Sachs, “Telecom Services CLECs, 1999: Issues and Outlook,” January 1999 at 3. 40% of the business market translates into about 13.% of all access lines. See *Preliminary Statistics of Communications Common Carriers*, 1998, p. 22. Table 2.4 (reporting 109.5 residential switched access lines and 56.6 million business switched access lines in the United States in 1998).

<sup>39</sup> See Aron-Fitzsimmons-Harris Reply Affidavit at ¶ 37.

<sup>40</sup> “Notes on corporate culture and possibilities as MCI Worldcom meets two years after its creation,” *New York Times*, June 7, 1999 at C13.

WorldCom is right behind: its 1998 capital expenditures were \$5.4 billion. Thus (acquisitions aside) both of these companies spend far more each year than would be needed to deploy switches that could be used to provide ubiquitous mass market service well into the future.

Nor are these companies the only CLECs with large capital budgets. Other CLECs as well have ready access to capital. Indeed, the ILEC portion of capital spending on wireline telecommunications services dropped from 58% in 1995 to 44% in 1998, and is expected to decline to 40% in 1999.<sup>41</sup>

In short, there is no credence to claims that CLECs cannot compete ubiquitously in the mass market without an enormous new switch infrastructure. Even a CLEC that is starting from scratch could deploy switches capable of serving the entire mass market for a tiny fraction of what AT&T and MCI WorldCom claim would be necessary.

**ii. CLECs Already Have Enough Switches  
to Compete in the Mass Market.**

CLECs, though, are not starting from scratch. During the past few years, they have been deploying new switches at a furious clip. Already they have enough switches to serve vast portions of the mass market.

As noted in Ameritech's comments and in the *UNE Fact Report*, CLECs had deployed 724 local exchange switches in 320 different cities as of March 1999.<sup>42</sup> As a

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<sup>41</sup> In the Loop: January 13, 1999, Credit Suisse First Boston, p. 40.

<sup>42</sup> These numbers are extremely (indeed overly) conservative. They exclude toll and wireless switches that may have local exchange capabilities – for example, switches that can support a mix of local, wireless, and long-distance traffic. They also exclude packet switches. The significance of this latter exclusion is underscored by AT&T's announced intent not to deploy any additional circuit switches and presumably, thus, to rely heavily on packet switching in its provision of cable-based local telephony. It is further underscored by the fact that CLECs

result of this aggressive switch deployment, over one third of all BOC and GTE rate centers are already served by at least one CLEC circuit switch, and many are served by two or more.<sup>43</sup> In the Ameritech region, the numbers are even more impressive: almost half of all rate centers are served by competitive switches.<sup>44</sup>

Of course, since these switches tend to be concentrated in densely populated areas, the percentage of *lines* addressable by these switches is much greater. In the Ameritech region, for example, CLEC switches have been assigned to rate centers accounting for 85% of Ameritech's access lines. CLECs have established collocation arrangements in rate centers representing 70% of Ameritech's access lines, and collocation space is available in all of the wire centers in which CLECs have not yet collocated. In total, 26 of the top 27 MSAs in the Ameritech region are served by at least one CLEC switch.

Moreover, CLECs can easily and quickly extend the reach of the switches they have deployed to still other rate centers because CLEC switches can and do typically serve a large geographic area – much larger than the area served by ILEC switches.<sup>45</sup>

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have deployed large numbers of packet switches, more even than ILECs. In this regard, one industry estimate suggests that CLECs had 874 data switches by year-end 1998, one-third more than the BOCs and GTE. *See 1999 CLEC Report*, New Paradigm Resource Group at Ch. 6, pp. 15-16.

<sup>43</sup> *Id.* at 73. These numbers, which are based on NXX code assignments, understate the percentage of customers that CLECs may serve with their existing switches because CLECs do not actually need to obtain an NXX assignment for a rate center in order to serve customers in that rate center. They can instead port customers' existing telephone numbers.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 78.